

Stormwater Monitoring Data – EPL 1967 EPL

Year: 2019 calendar year

Licensee Name and Address: Port of Newcastle Operations Pty Ltd; Newcastle Bulk Terminal, Heron Road Kooragang NSW 2304.

Location: Point 1 (Berth K2 Outlet)

Type of Monitoring: Discharge water quality monitoring.

Frequency required: Monthly during discharge with exceptions noted below table.

Notes: No limits are specified in EPL 1967.

EPL Link: [Link to EPL 1967](#) on EPA POEO Register

Monitoring location:



Figure: Location of EPL 1967 Point 1 (Google Maps, accessed 2021)

Analyte	Units	January 2019	February 2019	March 2019	April 2019	May 2019	June 2019
Date sampled	-	7/01/2019	1/02/2019	6/03/2019	1/04/2019	3/05/2019	1/06/2019
pH	pH	6.48	8.38	7.58	6.01	8.98	8.30
Aluminium (dissolved)	mg/L	0.01	<0.01	<0.01	0.03	0.14	<0.01
Aluminium (total)	mg/L	0.84	0.33	2.91	0.51	1.32	0.75
Ammonia	mg/L	260	724	366	20.4	510	112
Arsenic ** (dissolved)	mg/L	0.003	0.016	0.021	0.006	0.01	0.003
Arsenic ** (total)	mg/L	0.018	0.024	0.026	0.007	0.012	0.005
Cadmium (dissolved)	mg/L	<0.0001	<0.0001	<0.0001	0.0001	0.0002	<0.0001
Cadmium (total)	mg/L	0.0089	0.0011	0.0025	0.003	0.0012	0.0007
Lead (dissolved)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lead (total)	mg/L	0.013	0.006	0.024	0.006	0.007	0.006
Mercury (dissolved)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Mercury (total)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nitrate	mg/L	<0.05	<0.05	5.2	0.62	2.3	<0.05
Nitrite	mg/L	<0.05	0.06	10	0.08	2.3	0.13
Total Nitrogen	mg/L	<0.05	0.08	363	19.9	664	150
Total Kjeldahl Nitrogen	mg/L	311	831	348	19.2	659	150
Phosphate	mg/L	619	307	350	243	201	55.8
Phosphorus (dissolved reactive)	mg/L	192	47.8	68.8	71	56.7	9.9
Phosphorus (total)	mg/L	202	100	114	79.2	65.6	18.2
Sulfate	mg/L	669	751	402	41	243	179
Sulfur	mg/L	698	711	586	111	190	940
Sulfide (dissolved)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Suspended Solids	mg/L	260	255	257	27	94	127
Zinc (dissolved)	mg/L	0.034	0.007	0.012	0.819	0.14	0.058
Zinc (total)	mg/L	1.93	0.553	2.68	1.46	0.618	1.37

* insufficient rainfall for sample collection

** only required to be monitored following Sulphate of Ammonia operation

Results are continued on next page.

Analyte	Units	July 2019	August 2019	Sept 2019	Oct 2019	Nov 2019	Dec 2019 *
Date sampled	-	3/07/2019	29/08/2019	17/09/2019	5/10/2019	25/11/2019	-
pH	pH	6.84	8.95	8.39	8.30	7.55	-
Aluminium (dissolved)	mg/L	0.01	0.05	0.02	0.07	<0.01	-
Aluminium (total)	mg/L	0.87	2.07	0.49	2.14	2.2	-
Ammonia	mg/L	82.7	160	178	156	54.4	-
Arsenic ** (dissolved)	mg/L	0.003	0.002	<0.001	<0.001	0.002	-
Arsenic ** (total)	mg/L	0.004	0.004	0.002	0.003	0.005	-
Cadmium (dissolved)	mg/L	0.0001	<0.0001	0.0007	<0.0001	<0.0001	-
Cadmium (total)	mg/L	0.0008	0.0021	0.0005	0.0006	0.0007	-
Lead (dissolved)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	-
Lead (total)	mg/L	0.011	0.021	<0.001	<0.001	<0.001	-
Mercury (dissolved)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	-
Mercury (total)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.0019	-
Nitrate	mg/L	<0.05	0.53	<0.05	<0.05	<0.05	-
Nitrite	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	-
Total Nitrogen	mg/L	69.8	151	207	163	52.7	-
Total Kjeldahl Nitrogen	mg/L	69.8	150	207	163	52.7	-
Phosphate	mg/L	59.8	25.1	30.7	20.2	31.8	-
Phosphorus (dissolved reactive)	mg/L	19.3	2.1	4.26	4.61	9.8	-
Phosphorus (total)	mg/L	19.5	18.2	10	6.59	10.4	-
Sulfate	mg/L	1350	990	862	644	491	-
Sulfur	mg/L	1300	1010	900	740	470	-
Sulfide (dissolved)	mg/L	<0.1	<0.1	0.8	1.2	1.5	-
Total Suspended Solids	mg/L	333	219	98	122	149	-
Zinc (dissolved)	mg/L	0.383	0.092				-
Zinc (total)	mg/L	1.08	1.09	0.038	0.028	0.028	-

* insufficient rainfall for sample collection

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